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This is the authors' version of an article published in *Collegian*.

The original publication is available at:

<http://www.collegianjournal.com/article/S1322-7696%2810%2900085-5/abstract>

DOI: doi:10.1016/j.colegn.2010.09.003

Please cite this as: Kako, M. and Mitani, S., 2010. A literature review of disaster nursing competencies in Japanese nursing journals. *Collegian*, 17, 161-173.

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## **Title: A literature review of disaster nursing competencies in Japanese nursing journals**

### **Abstract**

Introduction: *Competencies* is an important concept used for assessing health professionals' capability to perform their role. By means of a literature review of Japanese professional journals this paper will investigate the competencies concept, particularly with relation to disaster nursing. Methods: The literature research was conducted using the database *ichu-shi* (ver. 4). All literature is written and published in Japanese and was published between 2001 and 2008. Due to an unfamiliarity of the term 'competencies' in Japanese, the key words were sought while deconstructing the meaning and concepts of 'competencies' into terms more recognisable in the Japanese context. Twelve key words: *disaster, capability, education, practice, licensure, ability, function, prevention, response, planning, emergency, and disaster nursing* were chosen as being most likely to find literature relevant to the English language concept of competencies. The searched articles were then written into the disaster nursing competencies review worksheet for analysis. Result: One hundred and twenty articles were found by searching a combination of these key words. Of these articles, those that were not in the context of disaster nursing were eliminated. As a result, 43 articles were chosen as being suitable for analysis of the context. These articles are classified into four themes. Conclusion: These theme groups indicated a foundation for competencies in disaster nursing. The definition of competencies in Japanese nursing journals was quite varied and cannot be easily defined as common disaster nursing competencies. Given the variety of areas and the distinct phases in disaster nursing, as well as the 'what for' and 'who governs', disaster nursing competencies will need its own discussion in order to establish the common competencies internationally.

**Key words:** competencies, literature review, disaster nursing, Japanese, concept.

## **Introduction**

A competency is an important concept used for assessing the health professionals' capability to perform their designated role. The International Council of Nurses (ICN) defines competence as '... a level of performance demonstrating the effective application of knowledge, skill and judgement' (International Council of Nurses, 1997). Gonczi et al. (1990) also states that competence '... is focused on performance of a role or set of tasks'.

Global market expansion in the 21<sup>st</sup> century prompted professionals around the world to seek international recognition, and the setting of competencies is an essential task for those seeking professional recognition in the international arena. A disaster situation represents a similar situation to health professionals wherever they reside, in that all health professionals are required to draw together and co-ordinate their efforts for disaster relief activities on a global level. Under these circumstances, competencies will aid health professionals to be equipped with standardised skills and knowledge for a more effective disaster relief (Dorsey, 2008).

Although there are discussions of disaster nursing competencies available in English journals, discussions in the other languages, such as in the Japanese nursing professional journals, are tremendously under-investigated. The language difference also prevents those languages from communicating and exchanging information in this area of study. The authors expect that this literature review will reveal the differences in interpretation of competencies in Japanese from English so that this discussion could contribute to construct deeper knowledge in competencies in disaster nursing area. Therefore this study will aim to search how the term competencies in Japanese nursing professional journals are explained and understood. Unfamiliarity with the term competencies and the term is rarely used in the Japanese language, while the literature search can reveal what kind of capabilities are expected of health professionals, especially of nurses in disaster situations. Clarifying capabilities such as skills, knowledge and professional attitudes in the Japanese disaster nursing area can imply disaster nursing competencies in

English. Due to these differences in language use, the authors sought the meaning of competencies by looking up to find which terms are most frequently used in journals. Disaster nursing includes all areas/phases of nursing, such as acute, chronic and rehabilitation, as well as at each age-stage of the population. Competencies in disaster nursing could also be varied, depending on which phase of the disaster is under discussion. It is hoped that this literature review study will reveal an understanding of the competencies concept in disaster nursing in Japanese nursing journals and seeking knowledge gap in interpretation of competencies in different languages. The authors also hope that this result can contribute to international discussions on disaster nursing competencies.

## Methods

The literature research was conducted with the database *ichu-shi* (ver. 4). This database is most commonly used for health-science related literature in Japan, with all literature being written and published in Japanese. The chosen period of published literature was between 2001 and 2008 in order to capture that period in which there were increased numbers of disasters nationally and internationally (International Federation of Red Cross and Red Crescent Societies, 2009; The Statistics Bureau and the Director-General for Policy Planning, 2010). The key words were sought while deconstructing the meaning and concepts of competencies into the common use in the Japanese context due to their unfamiliarity with the term competencies. Although this term is commonly used in the human resource management area to describe 'capability' of personnel, it is rarely used in nursing due to its unfamiliarity and the unspecified meaning in Japanese. The authors discussed terms, including synonyms, while constructing a concept of competencies in Japanese. As a result, 12 key words, '*disaster*', '*capability*', '*education*', '*practice*', '*licensure*', '*ability*', '*function*', '*prevention*', '*response*', '*planning*', '*emergency*' and '*disaster nursing*' were chosen. These key words were combined to seek appropriate articles focusing on the competencies in disaster nursing.

Inclusion of article criteria was peer reviewed and primary research based articles in disaster nursing area. Grey literature such as government reports and non-peer reviewed articles were excluded. The articles retrieved from searches were tabulated for the purpose of over-viewing the result. Summarised articles were carefully read through by investigators to synthesise the themes from selected articles in order to identify emerging topical research issues concerning competencies in disaster nursing while focusing on the commonality in the purpose of study and outcomes.

## Results

One hundred and twenty articles were found by a combination of the key words (Table 1).

Table 1 shows the various combinations of key words for searches and the number of articles found in each search category. The bracketed number shows the number of articles duplicated in other searches. Although the total number of analysed articles indicates 58 articles, 15 of these are duplicates so only 43 articles were chosen as being appropriate to analyse. After the synthesising process, 4 themes were generated from the literature review. These were:

- (1) questioning the practice capability (n=3)
- (2) measurement of health professionals' preparedness (n=20)
- (3) evaluating preparedness in the community, and (n=11)
- (4) disaster nursing and curriculum (n=9)

**Table 1. Search results**

Combination of key words	The number of articles found	The number of articles analysed
1. practice, capability, disaster	1	1
2. disaster nursing, education	50	15 (3)
3. disaster, response, planning	25	14 (6)

4. emergency, response, planning	10	5 (2)
5. practice, disaster nursing	10	9 (4)
6. licensure, disaster nursing	1	1
7. ability, disaster nursing	5	5 (3)
8. function, disaster nursing	3	2
9. disaster, prevention, disaster nursing	15	6 (5)
Total	120	58 (15 articles are identified in more than two categories)

Table 2 shows the summary of articles categorised into themes. The retrieved articles show that the study topics include not only nurses (as human resources) and nursing, but also the research methods and medical institutions in the communities. These articles imply the multiplicity and complexity of disaster nursing competencies, and consequently involving the many and varied elements in disaster nursing.

**Table 2. Summary of articles**

Themes	Authors, year	Methods	Findings
1. Questioning the practice capability (3)	Kubo et al. (2006)	Semi-structured interview of 4 nurses who attended relief activities in a volcano disaster.	Investigated the ability to assess during the relief activities. Three categories are pointed out: (1) gathering information, (2) aiding technique, (3) self-recognition.
	Fujii and Hashimoto (2007)	Questionnaire given to Public Health Nurses.	79 PHN replied (29.6%). PHN regarded their roles to be health check of evacuees, home visiting.
	Ishikawa et al. (2003)	Semi-structured interview of a Public Health Nurse.	The interview summarises the role of the public health nurse.
2. Measurement of health professionals' preparedness (20)	Tateno et al. (2007)	Survey given to 2,040 nursing professionals who work in practices over Japan.	1,008 returned. 815 answered that they had experience in CPR, with 57 claiming to have experience in disaster emergencies. The authors pointed to the need for a course in first aid for nursing professionals.
	Ohata et al. (2006)	Questionnaire given to 295 nurses who are either active as a E nurses (or have responsibility in the area).	Awareness of nurses at A hospital: the role of E nurse and activities. The study found that many nurses are concerned about leadership in a disaster situation. The E nurses were keen to participate in the workshops and training;

			however, practicing and motivating the units and wards to which they were attached was not highly prioritised.
	Aizawa et al. (2007)	Questionnaire given to 28 nurses at a hospital.	The result shows that the interest in triage is low. Half the participants had difficulty in understanding the concept of triage in a disaster situation. Regular workshops will be needed to promote disaster awareness.
	Mizushima and Hayashi (2005)	Questionnaire to nurses who participated in the relief during the earthquake in Niigata	Attracted a 71.1% reply rate. The aim was to improve care for patients with chronic health issues, as well as to improve the context of both health consulting and psychological assistance.
	Makino et al. (2008)	Interviews with disaster-planning officers in medical institutions.	Questions were aimed at disaster planning, especially in continuity of treatment for cancer patients. Educating patients to raise their self-care capability was also raised as an issue.
	Numata et al. (2008)	Data collection through web site, with 33 participants to agreeing to discuss the content of a leaflet for cancer patients.	An improvement of the Care package for cancer patients during disasters was based around the Web search. The researchers found that 58% of the participants thought that it was now appropriate for these patients.
	Hitachi et al. (2002)	Reviewing the manual at the primary treatment room at a hospital.	Human resources, goods, and communication with family was reviewed, and the system consequently restructured.

	Nagata et al. (2007)	Questionnaire given to 56 health professionals at an ICU unit.	18 % of the correspondents showed no preparedness in the event of an earthquake before the workshop. This changed to 80% feeling prepared after the workshop. Only 38% of participants knew of the disaster manual before the workshop. There were other questions that were also answered correctly ... after the workshop.
	Ohta et al. (2006)	Questionnaire given to 39 theatre nurses regarding the 'no lifeline' disaster situation.	After the presentation of the disaster response manual at an operating theatre, the questionnaire was distributed to nurses. 80% of nurses with less than 3-years' clinical experience replied that they felt that they could not manage casualties and 55% of nurses with more than 4-years experience replied that they would find it difficult.
	Koiwai and Watanabe (2007)	Questionnaire given to 13 theatre nurses.	The survey result indicated that the awareness of staff rose after the meeting to evaluate the content of the care package for theatre personnel in a disaster situation. A comparison was made before and after the meeting.
	Iwata et al. (2006)	Questionnaire given to 20 HD nurses	A questionnaire at the workshop to assess disaster response at an HD unit was conducted both before and after the workshop. The workshop included personnel from an emergency detachment from HD, fire and communication personnel.
	Aoki et al. (2007)	Questionnaire given to 27 orthopaediatric nurses	26 nurses replied with 100% expressing concern over the preparation for response to disaster situations. 56% of nurses did not have the knowledge to evacuate those needing special orthopaedic care. Post-questionnaire scenario simulation was useful in improving nurses' preparedness for evacuation.
	Futada et al. (2007)	Questionnaire to 14 gynaecology nurses at disaster workshop.	Staff studied their role and responsibility, including emergency evacuation routes and undertaking disaster drills. The workshop seemed to be generalised and was not aimed specifically at those working in a gynaecology ward.
	Hayashi et al. (2005)	Questionnaire given to nursing managers in Ishikawa prefecture.	85 people replied, making a 76.6% response. There do not seem to be many medical institutions with past disaster experience. Most are now committed to disaster drills. Although there are few institutions practicing disaster education, evacuations in case of fire and other disasters are now included. However, the majority of managers answered 'not sure' and 'not useful' when asked whether they found the manual useful.



	Niwa and Yamaguchi (2005)	Evaluation of the drills, 435 participants including fire personnel, paramedic officers, nurses, doctors and administrators.	Among the participants, 63% were nurses, about 15% were administrative officers, and 6% were doctors. The results proposed four recommendations. Firstly, that the layout of the triage needed to be clearly shown. Secondly, introducing 'arm-chair' training, including documentation for the triage tag. Thirdly, rehearsing with mock patients at the ward, and lastly, communication with other institutions.
	Tominaga et al. (2006)	Evaluation of simulation training for 11 theatre nurses.	The comparison before and after the simulation training did not show any difference in the clinical experience.
	Mizuno et al. (2006)	Questionnaire to 590 nurses. 79.1% response rate.	The result pointed out that human resources can be ready during a potential night-time disaster. It also indicated a need to increase education, workshops, training, and insurance for the relief personnel.
	Oshima et al. (2007)	Evaluation of knowledge in disaster nursing before and after seminar.	A questionnaire was distributed to 24 nurses before, and 25 after. Only 20% of nurses answered that they attended the lecture on disaster nursing, although they claimed to have participated in relief activities in the past.
	Morishita et al. (2002)	Questionnaire given to 688 health professionals.	Evaluation of disaster nursing preparedness in A prefecture. The result showed a low score in volunteer coordination and in communication and networking with other medical institutions. The authors also pointed out the need for drills and building the capacity for networking.
	Ganaha and Anri (2002)	Report of the incident.	Staff at a hospital discovered an unidentified white powder, which was thought to be anthrax. The report concerned what they learned and how they coped with the incident.
3. Evaluating preparedness in the community (11)	Ohta (2003)	Analysis of disaster mitigation system.	Analysing disaster planning between in 1923 and 1992. The result shows a close association between governance and disaster mitigation.
	Nemoto et al. (2007)	Patients' awareness of disasters. Questionnaire was given to 40 HD patients before and after they had watched disaster video material.	The researcher compared the awareness of patients both before and after the video.
	Kanzaki et al. (2006)	Developing a Website database catalogue.	The authors developed a catalogue system for disaster nursing. The database can be used for specialised searches by health professionals, but is also of use to civilians.

	Gotoh et al. (2004)	Preparedness in the case of older people and disaster.	Questionnaire given to older people in Yamagata to study the response and preparedness in the case of disasters. 2524 replies out of 2841 cases. The questions required answers on health status, activities, lifestyle and comments to the city government. 15.9% of older people do not seem to have anyone taking responsibility for their health.
	Nishimura et al. (2005)	Report from the No. 23 typhoon and floods.	Reviewing the water disaster of No. 23 typhoon. Raising preparedness was shown as things like storing more emergency devices, such as portable suction, recharge systems etc
	Ohta et al. (2002)	Questionnaire to 100 parents who have chronic illness in Iwate prefecture	The questionnaire addressed the preparedness for disaster of parents who have children with chronic illness. 23.1% of parents asked how to communicate with medical personnel. 13.8% of parents hoped to have an emergency network established.
	Okuno et al. (2006)	Questionnaire to 21 participants who attended the seminar.	4 males and 17 females participated in the seminar. They had a strong interest in disaster prevention and preparedness; however the recognition degree of these are influenced by personal views and situations as well as experience, so the context needs to include promotion for preparedness in disaster situations.
	Kawahara et al. (2006)	Interview with 61 families who have a family member using a community nursing service.	After the interview the nursing manual was launched. Interviews with families were successful in raising their preparedness for a disaster situation.
	Hirano et al. (2007)	Questionnaire given to 96 nursing students	56.3% of students replied to the questionnaire. They pointed out obstructions relating to the ceiling and walls, and that there was not enough warning to successfully evacuate.
	Watanabe et al. (2005)	Questionnaire given to health professionals at the workshop.	The result showed the 8 <sup>th</sup> element to be volunteering.
	Kumagaya and Ebina (2007)	Questionnaire to 31, second-year students	The survey was conducted with nursing students. The findings indicate the role of nurses and the experience of the patients.
4. Disaster nursing and curriculum (9)	Motoyama and Sakaguchi (2003)	113 third year students questionnaire about the recognition of disaster	Survey given to 113 nursing students to investigate recognition of disaster hazards. The recognition of risk hazard is higher in natural disaster than man-made disaster. There tends to be less recognition of disaster hazard by students as well as a low preparedness towards disaster.

	Ishikawa et al. (2006)	Questionnaire/evaluation of the topic by the students (the number of students is not mentioned).	The content of the topic was surveyed by the students, with 32 elements being retrieved and 5 elements whereby students learnt about the health needs in the community. The topic involved activities such as field-work and drills.
	Bouta et al. (2007)	Questionnaire given to 280 final year students after the triage training	Final year nursing students (total 280 students) conducted a rally triage. The aim was to bring about reflective learning from the experience.
	Tozawa et al. (2007)	Questionnaire to 70 third-year students to compare the groups between not having the seminar and having the seminar (that is, a camping experience)	Surveyed nursing students who experienced camping.
	Katahono et al. (2007)	Questionnaires given to 62 final year (fourth year) nursing students asking them to evaluate of the objectives of disaster management practice.	The result shows that overall the objectives were achieved. It is also pointed out that some topics, such as international cooperation and man-made disaster needs to be included into the topics.
	Oyama et al. (2006)	Questionnaire. Response rate 46.7%.	The questionnaires were distributed to the participants of the session on mental health in disaster. The findings show that the participants learned to better understand the victims in disasters, as well as initiating self-exploration.
	Niimi et al. (2006)	Report analysis of 40 first-year students after the drill.	Analysis of the students' reports after participating the drill.
	Matsumoto et al. (2007)	Questionnaire to 84 in Japanese universities (in 2004)	Surveyed the availability of the disaster-nursing course in Japan. 15 schools of the 61 surveyed offered disaster nursing courses.
	Yamamoto S. et al. (2007)	Literature review and group discussion (kind of focus group, as the authors did not name this)	Survey given to 39 Red Cross schools in Japan. Based on the philosophy of Red Cross schools, which all offer the topic of disaster nursing, as there are slight differences and other schools tend to offer the topic by combining it with other topics, such as acute nursing. The authors pointed out that continuing education in practice will be needed to bridge the situation of disaster nursing in undergraduate courses so that a consistency and continuity of education can be maintained.

## **1. Questioning the practice capability**

Kubo et al. (2006) investigates the capacity for nurses to assess patients at the relief shelters. This is the only article addressing the competence, or required capability of nurses in a disaster situation. The capabilities that they came up with are similar to those required in almost any category of nursing; such as observation, collection of information and application of the techniques and interventions available to them in the disaster situation (Schemieding, 2002). The ability to cope in a non-institutional environment with very limited resources is an essential requirement in disaster situations. Fujii and Hashimoto (2007) surveyed Public Health Nurses (PHN) on their role in disasters. The result shows that 29.6 % of responses cite tasks such as health checks of evacuees as a core role of the PHN. PHN in Japan hold a different licence to that of the Registered Nurses, with their primary role being public health work in the community. Despite this role differentiation between professionals, the provision of safety and care for evacuees and casualties is one responsibility and role they do share. Under such circumstances health professionals are required to make decisions on the spur of the moment, assess the situation and then ascertain what is needed to address it according to this assessment.

## **2. Measurement of health professionals' preparedness**

Most articles (n=20) retrieved were in this category of prioritisation and preparedness. The degree of preparedness is measured by the attitude to, and knowledge of a disaster situation by means of undertaking comparison studies between pre and post workshop for nurses. The intention of this is to gain an indication of the understanding of procedures in the event of a disaster (Iwata et al., 2006; Tominaga et al., 2006; Ohima et al., 2007). The participants of the studies were health professionals and patients/clients at community and medical institutions. The workshops were provided at work unit level, such as in the ICU, the HD unit, the operation theatre, and in orthopaedic and gynaecology wards. These studies were aimed at raising the awareness of nurses regarding the knowledge they will need in the event of disasters such as a

highly-developed level of communication in emergency situations, and the safety of both patients and nurses at the ward level and in evacuation procedures. Tateno et al. (2007) surveyed 2,040 practising nurses on their experience of CPR. Of these, 815 nurses affirmed that they have experience of CPR. Aizawa et al. (2007) also surveyed nurses' competency of triage in a hospital, and found that nurses' triage interest is low, and half the participants displayed difficulty in even understanding the principles of triage. They concluded that there is a real need for regular triage training for health professionals. The Niwa and Yamaguchi (2005) study also discovered that 'triage tag' used in the drill was not at all familiar to those surveyed. Their survey was conducted at a hospital and included health professionals, fire and paramedical officers, and administrative officers. This result showed that the layout and instruction needed to administrate a triage tag should be much clearer. In the case of a drill involving the entire personnel in an organisation, careful attention needs to be given to each of the personnel and their role/responsibility in the event of a disaster situation. Their study also recommended strengthening communication strategies. The Morishita et al. (2002) study also pointed out the importance of communication. In addition, they surveyed the disaster preparedness of nursing professionals. The result indicated a low score in coordination of volunteers, as well as in communication and networking with nearby medical institutions. Thus, the measuring of preparedness in health professionals must include an assessment of the health professionals' individual capability in disaster cases, as well as their level of organisational capability in the valuable skills of networking and communicating with any other institutions that may be involved.

### **3. Evaluating preparedness in the community**

Articles falling into this category generally covered a broad area in disaster nursing, especially those focused on the more vulnerable members of the population, such as older citizens, children with chronic illnesses and people in home care. For example, Ohta et al. (2002) surveyed parents caring for children with chronic illness for preparedness in an emergency

situation. The result shows that 23% of parent concerns involve the establishment of communication procedures in case of emergency, while 14% indicated that they hoped to have some kind of emergency network established. Communication establishment is a key element in case of an emergency. Gotoh et al.'s (2004) article also expressed this concern. They distributed questionnaires to older people in a prefecture where the area is not only quite remote, but also some of the areas within it experience heavy snow in winter. The survey showed that 16% of older people answered that they do not have anyone responsible for their health other than themselves. This result indicates that these older people are likely to be living by themselves and may have an inadequate social network to support them in case of an emergency. For the purpose of raising awareness in disaster preparation, Kawahara et al. (2006) interviewed 61 families who had a family member using community nursing services. The method of their study involved the more educational aspects of raising the preparedness of various residents in the community.

#### **4. Disaster nursing and curriculum**

Nine articles were chosen from this category. Seven of the nine (Motoyama & Sakaguchi, 2003; Bouta et al., 2007; Tozawa et al., 2007; Katahono et al., 2007; Oyama et al., 2006; Niimi et al., 2006; Ishikawa et al., 2006) focused on course/topic evaluation by means of administering a questionnaire to students. These questions were asked of students who had experienced medical intervention and nursing care via means of disaster drills, although the evaluations vary due to discrepancies in the purpose of the studies. The result of the studies indicated positive outcomes as a consequence of conducting drills for nursing students. The effectiveness of drills is discussed, with many studies finding that drills are effective in raising the awareness of the drill participants, especially when compared to those who do not undertake the drills, although biases were observable which were closely related to who provided and who participated in the training (Williams et al., 2008). Therefore, the dispute on

whether or not drills were effective may not be pertinent for discussion. Instead, the discussion needs to focus on the most effective method by which to deliver training/drills, rather than on the general effectiveness of the training/drills.

Motoyama and Sakaguchi (2003) found that the students with the least awareness of disaster hazards corresponded very closely to a low preparedness for action in the event of a disaster. Matsumoto et al. (2007) found that 15 out of 61 schools that replied to the questionnaire distributed to 84 universities offer disaster nursing topics at tertiary education level. Although 18% of the schools contacted offer disaster nursing, the authors should note that Matsumoto et al.'s (2007) study found the classification of disasters in Japan somewhat different to Motoyama et al (2003)'s, with a strong awareness of natural hazards but less awareness of the man-made hazards.

Another interesting point Motoyama et al. (2003) make is that the disaster nursing topics offered are all offered at undergraduate level. There is no information on whether specific, specialised disaster nursing courses are provided at post graduate level, although there are training courses for clinical and community nurses available provided by professional associations and organisations such as the Nursing Association, the Society of Disaster Nursing, and others.

## **Discussion**

### ***Complexity of disaster nursing competencies***

As the participants as well as the objectives of research varies, the authors found it anything but straightforward to overview competencies of disaster nursing, due to the broad meaning of competencies and how it is defined. For example, 7 searches out of 9 uncovered duplicated articles. In some of the searches more than half the articles were duplicates. Co-sharing of key

words implies that some article's contexts are quite similar to other's. Although this particular literature review did not aim to review the association between duplicated articles and key words, this closeness of concepts will become a further research objective.

The authors also found that lack of familiarity with terms used in practice needs more attention. As a result, the outcome of the literature review produced three articles discussing the abilities required by nurses to assess clients at relief shelters (Kubo et al 2006; Fujii & Hashimoto 2007; Ishikawa et al. 2003), with two articles pointing to the role of the PHN during a disaster situation (Fujii & Hashimoto 2007; Ishikawa et al. 2003). Including these two articles, a total of three articles discussed the competencies in disaster nursing as two of the articles relate specifically to the PHN. It also reveals that the nature of disaster nursing covers a very broad area.

For example, the various phases from acute to chronic, whether in regard to individuals or organisations, were all observed in this literature review. Watanabe et al. (2006) includes the various health stages and ages of nursing, which only serves to make disaster nursing competencies appear even more complex ([http://www.coe-cn.as.jp/english/group\\_education/core\\_competencies.html](http://www.coe-cn.as.jp/english/group_education/core_competencies.html)). Garfield (2008) mentioned that a common set of emergency competencies could be established through consultation and discussion with WHO and its committee members. This particular competencies focus is centred on emergency situations; or in other words, is focused on the acute phase of the disaster cycle. This perspective could change if other phases of disaster, such as recovery and development were to be included, since each disaster cycle demands very different resources from the people and the community.

### ***Too many competencies***



Furthermore, disasters involve various agencies such as health professionals, personnel from NPO, NGO, local, national and international governments, as well as the military to support affected people recover and rebuild their communities. With the added complexity of the various agencies' involvement, not to mention going through all the different phases of disaster, it is little wonder that Daily (2009) described this as a complexity of competencies in disaster nursing. She claims that problems in disaster nursing competencies were due to this 'multiple level of disaster nursing involvement', and to 'no standardized education', as well as 'no standards' and the too 'numerous competencies'. The issue of numerous competencies suggests that single organisations, medical institutions, educational institutions and professional associations and so forth, create their own competencies. When the authors consider the questions, 'whose competencies are for what?' and 'who sets the competencies?', it is obvious that there are still some questions that remain unanswered.

As Daily's description (2009) shows the varieties of competencies, the aim of these competencies expects the various members, students and practitioners; in fact whomsoever belongs to these organisations and professional groups to possess the abilities they describe. In other words, this is also a reflection on the public of the credibility of these organisations and professional groups. In the early stage disaster situations, individual ability/capability rather than organisational ability/capability is often being prioritised as it would be the case in the acute phase. Of course, it is an equally important aspect of the organisational ability/capability to manage and assess situations in order to provide better support and care for those who are in need as part of the organisational mission. To achieve these organisational missions, each individual as a member of the team/organisation needs to be competent.

The competencies in a disaster situation could just as easily be influenced by the situation a health professional is in, not merely by the organisation in which a professional works. In this

situation a health professional should be able to respond to the needs in any situation and provide support/care as and when it is needed. For this reason disaster nursing competencies need to have in place core competencies that will be applicable to all nurses who attend a disaster situation. Gebbie and Qureshi (2002) also suggested the ideal of core competencies in their paper, and emphasised the importance of identification of role responsibilities in case of emergency, by asking us whether we know who of us will take which role, and how we will act on various issues. In the international level of discussion, Kingma (2008) reported that the ICN is in the process of developing disaster nurse competencies. This movement will support to identify knowledge and skills gaps in disaster nursing. Basic competencies need to be developed and shared within the nursing education curriculum, because the basic core competency is also a foundation from which to develop into a registered nurse and a health professional. There were only few articles which clearly identified the competencies in the Japanese nursing professional and is still room to investigate the competencies based on the various disaster experiences to develop skills and knowledge required in these situations to contribute international discussion on competencies in disaster nursing. Based on this basic core competency, advanced competencies, which also could include the various areas of disaster nursing, could also be developed in the future.

### ***Need for more method/study, including retrospective study in practice***

The result of small number of the study on the competencies was due to the language difference in terms of describing the capacity of nurses' practice. Using the term 'competencies' directly in a Japanese context may not be suitable for situations such as nursing management and education. To clarify the meaning of competencies in Japanese context, utilising rich nurses' experience of disasters in Japan may help to tease out elements of competencies required in disaster situations. This process will also have a possibility to utilise as an evidence of disaster nursing competencies development while the national curriculum

policy has just been reviewed and there is a change of implementation of disaster nursing topic required at the tertiary level of nursing education since 2009 in Japan.

On the other hand, there are many studies on evaluating the preparedness of health professionals. Preparedness is an essential element if the practitioner is able to act effectively in a disaster situation, although it offers various perspectives and reflections in daily practice as well. It is also relatively accessible to conduct a study on preparedness.

To ascertain various competencies in disaster nursing, additional in-depth investigations from broader perspectives will be required. Moreover, controlling and knowing the boundary between the daily and the extreme situation is important. In other words, nurses need to recognise, not only investigate competencies for particular situations, but also appreciate that these particular situations are linear to the daily practice. If this is to be achieved, each health professional should be able to self-govern any disaster situation with their acquired competency and skills.

## **Conclusion**

This paper reviewed disaster nursing competencies in Japanese nursing professional journals. The findings from this study show the great complexity of competencies in disaster nursing, as there is not only involvement from various agencies, but there are also various phases of the disaster cycle to be considered. Competencies in Japanese is not familiar term, however elements of term competencies such as capability, ability and preparedness and so forth was discussed in literature. There are various skills and knowledge involved in disaster situations to support these complexities and developing basic core competencies would be extremely beneficial for nursing professionals, and consequently for nursing students. Based on various disaster experience, nurses and nursing academics in Japan has further possibilities to

investigate and contribute to disaster nursing area of study internationally. With the clear purpose of cultivating disaster nursing competencies, along with other in-depth studies, the disaster nursing competencies would gradually, by exposure to them on a regular basis, become more clearly defined.

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